Applicant: Henrik Arnberg
Serial No.: 10/599,753
Attorney's Docket No.: 156650010US1 / PD53824US00

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## **Amendments to the Claims**

This listing of claims replaces all prior versions and listings of claims in the application:

## 1-15. (Cancelled)

- 16. (Currently Amended) A method for treating a mammal suffering from a localized bacterial infection, or a bacterial-related disease, or both comprising <u>locally</u> administering a therapeutically effective amount of a composition comprising at least one granulocyte-macrophage-colony stimulating factor (GM-CSF) polypeptide or fragment or derivative thereof having essentially the biological function and activity of the GM-CSF.
- 17. (**Previously Presented**) The method of claim 16, wherein the bacterial infection or bacterial-related disease is selected from periodontal disease or sinusitis.
- 18. (**Previously Presented**) The method of claim 17, wherein the periodontal disease is gingivitis or periodontitis.

## 19-20. (Cancelled)

- 21. (**Previously Presented**) The method of claim 16, wherein the composition is suitable for administration via injection through the mucosal lining of the gingival or by application in a periodontal pocket.
- 22. (**Currently Amended**) The method of claim 16, wherein the GM-CSF or fragment or derivative thereof is present in the composition in a unit dosage amount of 5 μg to 800 μg.
- 23. (**Previously Presented**) The method of claim 22, wherein the unit dosage amount is 50  $\mu$ g to 100  $\mu$ g.

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24. **(Previously Presented)** The method of claim 16, wherein the composition is administered at intervals ranging from once a day to once every third week.

- 25. (**Previously Presented**) The method of claim 16, wherein the composition is administered a total of 1 to 3 times for a period of one week.
- 26. (**Previously Presented**) The method of claim 16, wherein the composition comprises a therapeutically effective amount of at least one other active ingredient.
- 27. (**Currently Amended**) The method of claim 16, wherein the GM-CSF or fragment or derivative thereof is produced by means of a recombinant expression system.
- 28. (Cancelled)
- 29. (**Currently Amended**) A composition for <u>locally</u> treating a localized bacterial infection, a or bacterial related disease, or both comprising a therapeutically effective amount of a granulocyte-macrophage-colony stimulating factor (GM-CSF) polypeptide or fragment or derivative thereof.
- 30. (New) The method of claim 16, wherein the composition comprises at least one derivative of a granulocyte-macrophage-colony stimulating factor (GM-CSF) polypeptide having essentially the function and activity of the GM-CSF.
- 31. **(New)** The composition of claim 29, wherein the composition comprises a therapeutically effective amount of a derivative of a granulocyte-macrophage-colony stimulating factor (GM-CSF) polypeptide.